

### **FEATURES**

- Medical Application
- Low Cost, High Reliability
- Compact Size, Light Weight
- 100% Full Load Burn-In Test
- Universal AC Input / Full Range
- UL2601-1, EN60601-1 Approved
- Built-In EMI Filter, Low Ripple Noise
- High Efficiency, Low Working Temperature
- Protections: Short Circuit /Overload /Over Voltage

# ╋ .**¶\** ... ▲== CB(€

#### SPECIFICATIONS: PSMPS65 Series

| All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. |                            |  |  |  |
|---|----------------------------|--|--|--|
| We reserve the right to change specifications based on technological advances.                                  |                            |  |  |  |
| INPUT SPECIFICATIONS  |                            |  |  |  |
| Input Voltage   | 90 – 264VAC (127 – 370VDC) |  |  |  |
| Input Frequency   | 47 to 440Hz                |  |  |  |
|   |                            |  |  |  |

| Input Frequency                           | 47 to 440Hz   |  |  |  |  |  |
|---|---|--|--|--|--|--|
| AC Current (typical)                      | 1.6A @ 115VAC / 0.9A @ 230VAC   |  |  |  |  |  |
| Inrush Current                            | Cold start 15A @ 115VAC; 30A @ 230VAC   |  |  |  |  |  |
| Leakage Current                           | Less than 0.3mA @ 264VAC  |  |  |  |  |  |
| OUTPUT SPECIFICATIONS                     |   |  |  |  |  |  |
| Output Voltage                            | See Table   |  |  |  |  |  |
| Voltage Tolerance                         | ±2.0% typical   |  |  |  |  |  |
| Output Adjustment Range                   | ±10% rated output load  |  |  |  |  |  |
| Output Power                              | 72W max with 18CFM minimum forced air flow                                      |  |  |  |  |  |
| Line Regulation                           | ±1%   |  |  |  |  |  |
| Load Regulation                           | ±2% typical   |  |  |  |  |  |
| Output Current                            | See Table   |  |  |  |  |  |
| Ripple & Noise (20MHz BW)                 | 100mVp-p typical  |  |  |  |  |  |
| Setup, Rise Time                          | 800ms and 30ms @ 230VAC and full load / 800ms and 30ms @ 115VAC and full load   |  |  |  |  |  |
| Hold-Up Time                              | 50ms @ 230VAC and full load / 16ms @ 115VAC and full load.                      |  |  |  |  |  |
| Temperature Coefficient                   | ±0.04%/°C (0~50°C)  |  |  |  |  |  |
| PROTECTION                                |   |  |  |  |  |  |
| Over Voltage Protection                   | CH.1: 115~135% rated output voltage   |  |  |  |  |  |
| Overload Protection                       | 73~105W hiccup mode, auto-recovery  |  |  |  |  |  |
| GENERAL SPECIFICATIONS                    |   |  |  |  |  |  |
| Switching Frequency (fixed)               | 45KHz   |  |  |  |  |  |
| Efficiency                                | Up to 80%   |  |  |  |  |  |
| Isolation Voltage (Input to Output)       | 4000VAC for 1 min.  |  |  |  |  |  |
| Isolation Voltage (Input to Field Ground) | 1500VAC for 1 min.  |  |  |  |  |  |
| Isolation Resistance (Input to Output)    | 100MΩ / 500VDC  |  |  |  |  |  |
| ENVIRONMENTAL SPECIFICATIONS              |   |  |  |  |  |  |
| Operating Temperature                     | -10°C to +60°C (refer to derating curve)  |  |  |  |  |  |
| Storage Temperature                       | -20°C to +85°C  |  |  |  |  |  |
| Operating Humidity (non-condensing)       | 20% to 90% RH   |  |  |  |  |  |
| Vibration                                 | 10~500Hz, 2G 10min./1cycle, Period for 60 minutes each along X, Y, and Z axes.  |  |  |  |  |  |
| MTBF                                      | 359,700 hours min. (According to MIL-HDBK-217) at 25°C                          |  |  |  |  |  |
| PHYSICAL SPECIFICATIONS                   |   |  |  |  |  |  |
| Weight                                    | 280g  |  |  |  |  |  |
| Dimensions                                | 127(L) x 76(W) x 42(H) mm   |  |  |  |  |  |
| SAFETY & EMC                              |   |  |  |  |  |  |
| Safety Standards                          | andards UL2601-1, TUV EN60601-1, IEC601-1 Approved                              |  |  |  |  |  |
| EMC Standards                             | EN55011 class B, EN61000-4-2,3,4,5,6,8,11, EN61000-3-2,3, EN60601-1-2, ENV50204 |  |  |  |  |  |

Wall Industries, Inc. 5 Watson Brook Road Exeter, NH 03833 603-778-2300 www.wallindustries.com Fax 603-778-9797



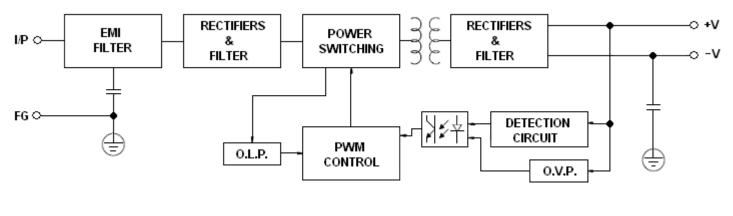
### **OUTPUT VOLTAGE / CURRENT RATING CHART**

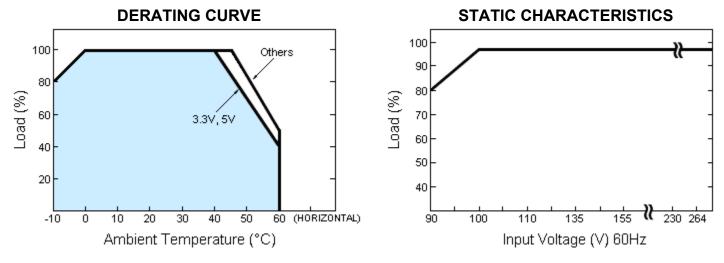
| Model        | Input Voltage               | Output<br>Voltage | Output Current<br>Range | Output<br>Current | Ripple &<br>Noise | Rated Output<br>Power |
|--------------|-----------------------------|-------------------|-------------------------|-------------------|-------------------|-----------------------|
| PSMPS65-3.3  |                             | 3.3 VDC           | 0 – 15.2A               | 12A               | 80mVp-p           | 39.6W                 |
| PSMPS65-5    |                             | 5 VDC             | 0 – 13.8A               | 12A               | 100mVp-p          | 60W                   |
| PSMPS65-7.5  | 90~264 VAC<br>(127~370 VDC) | 7.5 VDC           | 0 – 9.6A                | 8A                | 100mVp-p          | 60W                   |
| PSMPS65-12   |                             | 12 VDC            | 0 – 6A                  | 5.2A              | 100mVp-p          | 62.4W                 |
| PSMPS65-13.5 |                             | 13.5 VDC          | 0 – 5.4A                | 4.7A              | 100mVp-p          | 63.5W                 |
| PSMPS65-15   |                             | 15 VDC            | 0-4.8A                  | 4.2A              | 100mVp-p          | 63W                   |
| PSMPS65-24   |                             | 24 VDC            | 0 – 3A                  | 2.7A              | 100mVp-p          | 64.8W                 |
| PSMPS65-27   |                             | 27 VDC            | 0 – 2.7A                | 2.4A              | 100mVp-p          | 64.8W                 |
| PSMPS65-48   |                             | 48 VDC            | 0 – 1.5A                | 1.35A             | 100mVp-p          | 64.8W                 |

# NOTES

- 1. All parameters are specified at 230VAC input, rated load, 25°C ambient.
- 2. Tolerances include set up tolerance, line regulation, load regulation.
- 3. Line regulation is measured from low line to high line at rated load.
- 4. Mounting holes M1 and M2 should be grounded for EMI purposes.
- 5. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uF & 47uF capacitor.

# BLOCK DIAGRAM



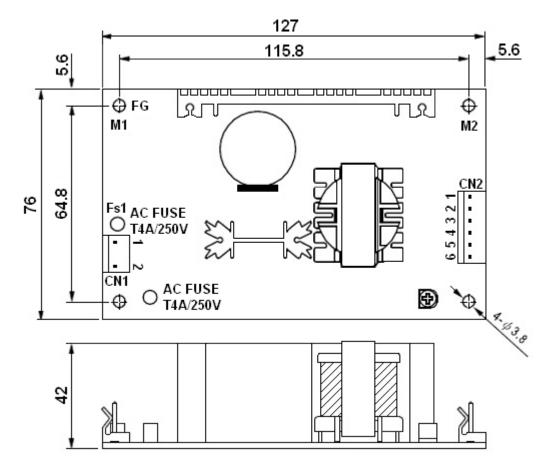


Wall Industries, Inc. 5 Watson Brook Road Exeter, NH 03833 603-778-2300 <u>www.wallindustries.com</u> Fax 603-778-9797



### **MECHANICAL DRAWING**

#### Unit: mm



#### AC Input Connector (CN1): Molex 5277-02 or equivalent

| Pin. No | Assignment | Mating Housing | Terminal      |
|---------|------------|----------------|---------------|
| 1       | AC/N       | Molex 5195     | Molex 5194    |
| 2       | AC/L       | or equivalent  | or equivalent |

#### DC Output Connector (CN2): Molex 5273-06 or equivalent

|         |            | 1              |               |
|---------|------------|----------------|---------------|
| Pin No. | Assignment | Mating Housing | Terminal      |
| 1,2,3   | +V         | Molex 5195     | Molex 5194    |
| 4,5,6   | -V         | or equivalent  | or equivalent |